

**Greenhouse Gas Emission Reduction Task Force Meeting
(Act 234, Session Laws of Hawaii (SLH) 2007)
November 30, 2007
State Office Tower (SOT), Room 405
Meeting Minutes**

Task Force Members Present:

Co-Chair Theodore E. Liu, Director, Department of Business, Economic Development and Tourism (DBEDT)

Co-chair Laurence K. Lau, Deputy Director for Environmental Health, Department of Health (DOH)

Mr. Robbie Alm, Senior Vice President for Public Affairs, Hawaiian Electric Company, Inc.

Mr. Frank Clouse, Manager, Refining, Tesoro Hawaii Refinery

Dr. Makena Coffman, Assistant Professor, University of Hawaii (UH) Department of Urban and Regional Planning, Member, University of Hawaii Manoa Climate Change Commission (UHM-CCC)

Mr. Mark Fox, Director, External Affairs, The Nature Conservancy of Hawaii (TNC)

Mr. Jeffrey Mikulina, Chapter Director, Sierra Club Hawaii Chapter

Task Force Members Excused:

Mr. Gary North, Senior Vice President, Matson Navigation Company.

Dr. Lorenz Magaard, Professor, UH Department of Oceanography, Chair, UHM-CCC

Mr. Gareth Sakakida, Managing Director, Hawaii Transportation Association

Staff Members Present from DBEDT:

Mr. Maurice Kaya, Chief Technology Officer

Dr. John Tantlinger, Manager, Energy Policy and Planning Branch

Ms. Estrella Seese, Energy Economist

Ms. Karen Shishido, Energy Analyst

Ms. Priscilla Thompson, Energy Analyst

Staff Members Present from DOH:

Mr. Wilfred Nagamine, Branch Manager

Mr. Barry Ching, Planner

Ms. Marianne Rossio, Engineer

Ms. Priscilla Ligh, Engineer

Representative from Attorney General's Office:

Mr. Gregg Kinkley, Deputy Attorney General

1. The meeting was called to order by Co-Chair Mr. Liu at 1:37 pm.
2. Review of the Minutes of the October 4, 2007 Task Force Meeting and Consideration for Approval
 - a. Mr. Mark Fox moved the motion to approve the minutes. Co-chair Lau seconded the motion.

- b. The minutes were approved unanimously by members present without changes.
- 3. Information Briefing on Analytical and Modeling Support Project by the University of Hawai'i and Hawai'i Energy Policy Forum
 - a. Dr. Paul Bernstein and Dr. Denise Konan made a presentation on the status, structure, and preliminary results of the Economic Model and Analysis project commissioned by HECO. The project is a partnership between UH and University of Hawaii Economic Research Organization (UHERO), and in conjunction with the Hawaii Energy Policy Forum. Dr. Bernstein discussed the complex nature of climate change policy, the technological innovation required for successful outcomes, and the long time horizon that must be considered. There are economic consequences for key industries as well as households, and care must be taken to avoid policies which have a disproportionate impact on the poor. Policy instrument approaches vary, ranging from command and control (top-down) measures, to market-based instruments such as carbon taxes and cap-and-trade programs or market interventions such as information dissemination and marketing to correct market failures. He discussed existing and proposed climate change policies in the U.S. and internationally, focusing on California's Assembly Bill 32, on which Hawaii's legislation (Act 234) is based, and potential challenges California faces in implementing its policies.
 - b. The following is a summary of Dr. Konan's presentation:
 - i. The purpose of the project is to develop a general equilibrium macro-economic model to analyze and assess the impact of greenhouse gas policies on all aspects of the economy, such as the impact on Hawaii's state domestic output (GDP), personal income, employment, tax structure, among others.
 - ii. The study includes forecasts of carbon dioxide emissions by sector, and estimates of emission intensity.
 - iii. The model uses data from the DBEDT Input-Output Model, and from the 1995 EPA workbook, as well as data from the utilities.
 - iv. Dr. Konan presented some preliminary results. She indicated that the model will also include the impact of technological changes resulting from greenhouse gas emissions measures and policies.
 - v. Hawaii's environment is unique and therefore specialized models are needed. More resources will be required to analyze alternative scenarios and impacts.
 - c. The following are the TF members comments and questions:
 - i. Chair Ted Liu asked how the forecast of carbon dioxide from 'public finance' sector was estimated, and if and how the military sector is included in the model.
 - ii. Mr. Maurice Kaya asked whether the fuel price forecasts used in the model embedded the impact of the existing energy policies; he also indicated that the staff support to the TF need to know and understand the UH research project, and its intended outputs.
 - iii. Dr. John Tantlinger commented on the requirements of the TF's work plan including a more detailed and more rigorous update of the 1990

Hawaii emissions report for regulatory application. Dr. Tantlinger also stated that the UH model is on a macroeconomic level, whereas the Act 234 requirements have a more microeconomic focus, such as identifying the emitters, identifying the impact of various emissions reduction measures, etc.

- iv. Mr. Jeffrey Mikulina asked about the sources of data used in the model. He also asked if the potential greenhouse gas impacts on tourism, such as rising of sea levels, can be incorporated into the model; he stressed that the impacts may not take a linear or predictable path. He also stressed the need to look at the issue of leakage and ‘collateral effects’ with regard to future use of biofuels in Hawaii, with the concern that emissions could potentially be reduced in Hawaii but increased elsewhere.
- v. Dr. Coffman expressed an interest in seeing a display of the theoretical policy options before the general equilibrium model is finalized. Regarding measures to adapt to climate change, she suggested that revenue recycling may be a potential source of funding.
- vi. Mr. Fox expressed an interest in learning more about potential climate change impacts to Hawaii and also what role afforestation and carbon sequestration will play in reducing emissions. If the University’s research does not include these opportunities to reduce emissions, the task force should deliberate on what resources are needed to analyze these options.

4. Task Force Discussion

a. Dr. Tantlinger presented a brief review of the main responsibilities of the Task Force members and the main components of Act 234 for the benefit of the members who were absent from the first Task Force meeting on October 4th. The major components are the emissions inventory update, a workplan, and administrative rules. The inventory will need to ensure that emission sources are accurately identified, and the policies to be implemented should include reduction measures as well as a regulatory scheme. As required in Act 234, during the rulemaking phase, at least one public workshop will be held in each county in the state. There will be an update every five years to the workplan, meaning that the Task Force is a permanent, continuing entity. The completion deadline for the first update is the 2010 legislative session, which means it must be submitted in December 2009. Reduction measures and limits developed as administrative rules by Department of Health must follow Chapter 91 (Chapter 91, Hawaii Revised Statutes, “Administrative Procedure”). This will involve a complex process that may take years due to the statewide impact of limits on greenhouse gases and the careful analysis and stakeholder feedback required. Dr. Tantlinger reported that a Request for Authority to Contract Consultant Services, for the update of Hawaii’s emissions inventory, and contract staffing to assist in management Task Force activities and development of a work plan, has been drafted and submitted to the Governor for approval.

- b. Mr. Alm commented that though emissions from air transportation (jet fuel) may have decreased since 1990, they are still a significant source in Hawaii; under Act 234, emissions from aviation have been exempted. He remarked that an objective assessment of all sources of emissions is necessary to take a serious approach to reductions.
- c. Dr. Tantlinger indicated that Federal greenhouse gas emissions regulation seems imminent, and that Hawaii will need to look at the State greenhouse gas law when the Federal regulation comes about, to ensure integration with the national regulation.
- d. Mr. Mikulina commented that Act 234 does not have a definition of what “cost effective” means.
- e. Co-Chair Liu stated that the following need clarification or discussion with the legislature:
 - 1. Definition of “cost-effective”.
 - 2. The exclusion of aviation emissions.
 - 3. Whether Act 234 regulation will apply to the military
- f. Co-Chair Lau reported on Department of Health’s involvement in regional and national climate change policy partnerships and data registries such as such as the Western Regional Air Partnership and The Climate Registry and expressed his interest in data and information sharing with other states. He asked that any comments on The Climate Registry proposed reporting protocol be sent to him. Co-Chair Liu reported that the Task Force does not yet have designated permanent support staff and urged members to be judicious in asking support from staff from DBEDT and DOH currently assigned to support the Task Force’s activities. He also stated that, being mindful of the lack of designated Task Force staff and in keeping with what is stated in the statute, funding help and personnel resources from members’ respective agencies and organizations is welcomed.
- g. Mr. Fox stated that the Task Force would like to hear the staff’s thoughts regarding the ordering of the TF’s work plan. Dr. Tantlinger responded by indicating that regarding the organization of tasks in the work plan, DBEDT has requested the Governor’s approval to release the funds appropriated in Act 234 and allow issuance of a request for proposals (RFP) for consultant support for this task. The RFP will solicit proposals for mapping out the work plan stated in Act 234 and management of TF activities.

5. Public Comments

- a. Pat Tummons suggested that the Task Force investigate the feasibility of videoconferencing Task Force meetings in the future. Co-Chair Liu commented that videoconferencing may have Sunshine Law implications, while agreeing to investigate feasibility.

The meeting was adjourned by Co-Chair Liu at 3:43 pm. TF members unanimously agreed to have the next meeting on **Thursday, January 3, 2008.**